

We claim:

1. A enhanced wireless access point, comprising:
an access point;
at least one omni directional antenna; and
at least one ground plane radio frequency coupled to at least one of the at
5 least one omni directional antenna, wherein
the at least one omni directional antenna functions as a directional
antenna.
2. The wireless gateway according to claim 1, wherein the at least one
10 omni directional antenna comprises at least one of a dipole, a monopole, a
printed circuit board antenna, a planar inverted F antenna, a multiband dipole, a
PLB microstrip antenna, and a dielectric antenna.
3. The wireless gateway according to claim 1, wherein the at least one
15 omni directional antenna comprises a plurality of omni directional antennas.
4. The wireless gateway according to claim 3, wherein the plurality of
omni directional antennas are arranged to provided diversity.
- 20 5. The wireless gateway according to claim 2, wherein the at least one
ground plane comprises a plurality of ground planes.
6. The wireless gateway according to claim 1, wherein the at least one
omni directional antenna comprises a first number of omni directional antennas
25 and the at least one ground plane comprises a second number of ground planes
where the first number of omni directional antenna is larger than the second
number of ground planes.

7. The wireless gateway according to claim 1, wherein the at least one
30 omni directional antenna comprises two omni directional antennas arranged to
provided diversity.

8. The wireless gateway according to claim 7, wherein the at least one
ground plane comprises one ground plane associated with one of the two omni
35 directional antennas.

9. The wireless gateway according to claim 7, wherein the at least one
ground plane comprises two ground planes, each ground plane associated with a
respective one of the omni directional antennas.

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10. The wireless gateway according to claim 1, further comprising:
at least one substrate;
the at least one ground plane is mounted on the substrate; and
the at least one substrate is releasably coupled to the access point.

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11. The wireless gateway according to claim 1, wherein the access
point comprises a back plane and the at least one ground plane is mounted on the
back plane.

50 12. The wireless gateway according to claim 1, wherein the at least one
ground plane is placed to steer a radiation pattern associated with the at least one
omni directional antenna.

13. A wireless gateway, comprising:
an access point;
means for providing an omni directional radio frequency pattern; and
means for converting the omni directional radio frequency pattern to a
5 directional radio frequency pattern.

14. The wireless gateway according to claim 13, wherein the means for
providing is at least one omni directional antenna.

10 15. The wireless gateway according to claim 13, wherein the means for
converting is at least one ground plane.

16. The wireless gateway according to claim 13, wherein the means for
converting is about $\frac{1}{4}$ wavelength from the means for providing.
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17. A wireless gateway, comprising:
an access point;
the access point adapted to connect to a network;
a bracket;
5 the bracket releasably coupled to the access point; and
the access point further comprises:
a first omni directional antenna; and
a second omni directional antenna;
the bracket further comprises:
10 a first ground plane;
such that when the bracket is releasably coupled to the access point, the
first ground plane causes the first omni directional antenna to exhibit a first
directional antenna radiation pattern.
- 15 18. The wireless gateway according to claim 17, wherein the first
ground plane causes the second omni directional antenna to exhibit a directional
antenna radiation pattern.
- 20 19. The wireless gateway according to claim 17, wherein the bracket
comprise a second ground plane and the second ground plane causes the second
omni directional antenna to exhibit a section directional antenna radiation
pattern.
- 25 20. The wireless gateway according to claim 17, wherein when the
bracket is releasably coupled to the access point, the first ground plane is about
 $\frac{1}{4}$ wavelength from the first omni directional antenna.